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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/987,775	12/09/1997	ACHIM GREFENSTEIN	47587/48070	6702

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KEIL & WEINKAUF
1350 CONNECTICUT AVENUE, N.W.
WASHINGTON, DC 20036

EXAMINER

KRUER, KEVIN R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 01/03/2003

21

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/987,775

Applicant(s)

GREFENSTEIN ET AL.

Examiner

Kevin R Krueer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24,26,30,31,34,41 and 43 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 24,26,30,31,34,41 and 43 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 24, 31, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. (US 5,747,568) in view of WO96/09928 (herein referred to as "Sallmetall") for reasons of record.
2. Claims 24, 31, 34, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. (US 5,747,568) in view of Ellison (US 5,985,079) for reasons of record.
3. Claims 24, 31, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenau et al. (US 5,821,302) in view of Ellison (US 5,985,079) for reasons of record.
4. Claims 24, 31, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenau et al. (US 5,821,302) in view of Trabert et al. (US 5,318,737) for reasons of record.
5. Claims 24, 31, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenau et al. (US 5,821,302) in view of EP006421 (herein referred to as "Endoh") for reasons of record.
6. Claims 24, 31, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. (US 5,747,568) in view of EP0060421 ("Endoh") for reasons of record.

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7. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over (a) Fischer et al. (US 5,747,568) in view of WO96/09928 (Sallmetall), (b) Fischer et al. (US 5,747,568) in view of Ellison US 5,985,079), (c) Rosenau et al. (US 5,821,302) in view of Ellison (US 5,985,079), (d) Rosenau et al. (US 5,821,302) in view of Trabert et al. (US 5,318,737), (e) Rosenau et al. (US 5,821,302) in view of EP0060421 (Endoh), or (f) Fischer et al. (US 5,747,568) in view of EP0060421 (Endoh), as applied above, and further in view of Tsai et al. (US 5,858,550) for reasons of record.

8. Claims 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over (a) Fischer et al. (US 5,747,568) in view of WO96/09928 (Sallmetall), (b) Fischer et al. (US 5,747,568) in view of Ellison US 5,985,079), (c) Rosenau et al. (US 5,821,302) in view of Ellison (US 5,985,079), (d) Rosenau et al. (US 5,821,302) in view of Trabert et al. (US 5,318,737), (e) Rosenau et al. (US 5,821,302) in view of EP0060421 (Endoh), or (f) Fischer et al. (US 5,747,568) in view of EP0060421 (Endoh), as applied above, for reasons of record.

9. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. (US 5,747,568) in view of Zabrocki et al (US 5,306,548) or McDonagh (US 4,169,180). Fischer teaches a molding material comprising 30-80wt% of an elastomeric grafting base and 20-70wt% of a shell grafted onto the grafting base (abstract). The grafting base comprises 90-99.9% of at least one alkyl acrylate and 0.1-10wt% of a polyfunctional crosslinking monomer. The shell comprises 0-100% styrene or substituted styrenes, and 0-100% of an acrylonitrile or methyl methacrylate. The above-described particles are dispersed in a hard matrix comprising 60-90wt% styrene or

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substituted styrene and 10-40% acrylonitrile (col 1, lines 48-col2, line 16). The composition may further contain up to 30t% of additives such as fibers (Col 4, lines 26-34). This composition exhibit good weather resistance, aging resistance, and high impact strength (col 4, lines 46-53), and are usable as signs (col 4, line 48).

Fischer does not teach that a styrene-acrylonitrile copolymer layer may be applied to the taught composition. However, Zabrocki teaches a weatherable film for lamination to an underlying substrate. The film comprises an outer layer of weather resistant polymer comprising styrene/acrylonitrile copolymer or butyl acrylate-reinforced styrene/acrylonitrile copolymer (abstract). The film can be utilized with high impact polystyrene substrates (see example 1). NOTE: the composition taught in Fischer is a HIPS composition. For a definition of a HIPS, Applicant's attention is directed to US 4,749,737 (see col 5, lines 27+). Thus, it would have been obvious to one of ordinary skill in the art to apply the styrene-acrylonitrile weatherable film taught in Zabrocki to the composition taught in Fischer in order to improve said composition's weather resistance.

Similarly, McDonagh teaches a protective layer comprising methacrylate/crosslinked styrene-acrylonitrile/uncrosslinked styrene-acrylonitrile (abstract). Said composition is applied to base layers that lack superior weather resistance (abstract). Thus, it would have been obvious to one of ordinary skill in the art to apply the protective layer taught in McDonagh to the composition taught in Fischer in order to improve its weather resistance.

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10. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenau et al. (US 5,821,302) in view of Zabrocki et al (US 5,306,548) or McDonagh (US 4,169,180). Rosenau teaches a thermoplastic molding composition comprising (a) 50-100wt% of a styrene compound, and (b) 0.1-70wt% of a graft polymer. The styrene compound may comprise 0-40wt% acrylonitrile. The graft polymer comprises 30-90wt% of a core, and 10-70wt% of a graft shell. The core comprises 50-99.99wt% of C1-10 alkyl acrylate, and 0.01-5wt% of a polyfunctional crosslinking monomer. The shell comprises 50-100wt% styrene and 0-40wt% acrylonitrile (col 1, lines 4-65). The graft polymer has an average particle diameter of less than 700nm. The composition may further comprise up to 70wt% of a particulate polymer. The composition is useful in extrusions, injection moldings, calendaring, and rolling (col 10, lines 58-64), and may be utilized to make automotive parts.

Rosenau does not teach that a styrene-acrylonitrile copolymer layer may be applied to the taught composition. However, Zabrocki teaches a weatherable film for lamination to an underlying substrate. The film comprises an outer layer of weather resistant polymer comprising styrene/acrylonitrile copolymer or butyl acrylate-reinforced styrene/acrylonitrile copolymer (abstract). The film can be utilized with high impact polystyrene substrates (see example 1). NOTE: the composition taught in Rosenau is a HIPS composition. For a definition of a HIPS, Applicant's attention is directed to US 4,749,737 (see col 5, lines 27+). Thus, it would have been obvious to one of ordinary skill in the art to apply the styrene-acrylonitrile weatherable film taught in Zabrocki to the

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composition taught in Rosenau in order to improve said composition's weather resistance.

Similarly, McDonagh teaches a protective layer comprising methacrylate/crosslinked styrene-acrylonitrile/uncrosslinked styrene-acrylonitrile (abstract). Said composition is applied to base layers that lack superior weather resistance (abstract). Thus, it would have been obvious to one of ordinary skill in the art to apply the protective layer taught in McDonagh to the composition taught in Rosenau in order to improve its weather resistance.

Response to Arguments

Applicant's arguments filed October 17, 2002 have been fully considered but they are not persuasive.

Applicant argues that the laminate of the present invention has unexpected superior results in comparison to known laminates. Specifically, Applicant argues that the laminate has the following superior properties:

- a) The laminate has a lower loss in toughness in comparison to a laminate with an ABS substrate.
- b) The laminate prevents cracking of the PMMA layer.
- c) Thinner PMMA layers can be used without the loss of UV-stability.
- d) The laminate has good low temperature scratch resistance and surface gloss.
- e) The laminate maintains high gloss at high draw ratios.
- f) Substrates that comprise polycarbonate have high impact resistance.
- g) The penetration resistance of the PMMA/ASA laminate is higher on the PMMA side than the ASA side.
- h) The deep draw of the laminate is superior.
- i) The scratch resistance of the laminate is better than the scratch resistance observed with PVDF overlays.
- j) The laminate maintains its gloss after weathering.

With respect to the arguments above, the arguments of counsel cannot take the place of evidence in the record. See MPEP § 716.01(c). Attorney statements that are not evidence and which must be supported by an appropriate affidavit or declaration when unexpected results are asserted.

Applicant further asserts that the laminate has good low temperature impact resistance (Table 2) and elongation at break (Table 3). Applicant further argues that the penetration energy of the laminate is unexpected (Table 1). However, the data in Tables 1-3 is not commensurate in scope with the claims. Whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the "objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support." The inventive examples in Tables 1-3 each contain 3 layers, wherein the claims only require two layers to be present. Furthermore, each example comprises polycarbonate in the substrate layer; polycarbonate is an optional component of the claimed substrate. The tables also do not contain examples across the entirety of the claimed range with respect to components A-D. Thus, Applicant's arguments are not persuasive.

Applicant further argues that Rosenau and Fischer are both drawn to totally different problems. Furthermore, Applicant argues that Ellison, Sallmetal, Trabert, and Endoh do not teach the use of ASA substrates. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

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See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 703-305-0025. The examiner can normally be reached on Monday-Friday from 7:00a.m. to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 305-1261. The fax phone

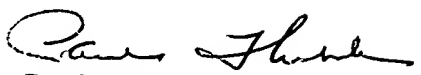
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number for the organization where this application or proceeding is assigned is 703-305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-

0661.

K-RK
KRK


Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700